AMERICAN INTELLIGENCE.

ORIGINAL COMMUNICATIONS.

Peritonitis from Perforation of the Appendix Vermiformis, resulting in Gangrene. By FREDERIC D. LENTE, M. D., of Cold Spring.

T. E., aged 19, in good general health, applied at the office on Friday, Nov. 28, 1860, complaining of some "soreness" on the right side of the abdomen. The spot over which this soreness extended was quite circumscribed, and corresponded with the situation of the *caput coli*. He stated that he was running very fast a few hours before, and then, for the first time, felt the pain. There had been no previous constipation or other abdominal difficulty. Being engaged myself, Dr. Richerson, my assistant, prescribed for him. The following day he was sent for and found the symptoms more decided and alarming; the tenderness over the region above referred to had much increased and had extended over a larger surface. The pulse, which was natural at first, was now much accelerated. As the bowels had been freely evacuated by the medicine prescribed on the previous day, he was now put on anodyne treatment, and perfect rest in bed enjoined. Subsequently, the pulse rose to 130, and *veratrum viride* was resorted to; which, after several full doses, reduced the pulse to 70, and at times even less; about this time vomiting supervened, and continued at intervals until death, but not to such a degree as to prevent a due amount of nourishment, which was kept up in the form of beef tea, chicken jelly, etc., and as symptoms of sinking made their appearance, with the addition of brandy, egg-nog, etc. The pain, which, after the second day, extended over the whole of the lower part of the abdomen, and was very severe, was controlled to some extent by the *veratrum*, and when necessary, by morphine, at first by the mouth, subsequently by the hypodermic method and by *enemata per rectum*. Delirium set in early and regularly increased to within twelve hours of death. It was unaffected by the powerful anodynes administered for the pain, nor did these procure any sleep; the patient being wakeful day and night during the last few days of his illness. About once in forty-eight hours, emollient enemata were given, as the tympanitis, which was never excessive, threatened to increase; these generally acted well, and always with temporary relief to the symptoms. On Thursday, seventh day, he seemed better; the abdominal pain and distension were decidedly less, although he had taken less opiate for twelve hours; his pulse was better and he had an hour's sleep. On Thursday night, however, Dr. Richerson was called to him, and found him complaining of severe pain in the epigastrium, or a little below it. There was scarcely any pain on pressure over its original seat. This pain was only controlled by large doses of morphine administered by the hypodermic method. From this date he gradually sank until Saturday, the ninth day of the attack, when he died.

Autopsy, twenty hours after death, weather cold, body in a cold room. No signs of decomposition. Circumstances rendered a rather hurried ex-

amination necessary, the father being present. The abdominal cavity only was opened. Upon cutting through the walls, the viscera at the upper part of the cavity were found glued to them by soft adhesions, so that a slight nick was unavoidably made in the small intestine; this was immediately tied up. While separating these adhesions towards the stomach, fluid fecal matter was seen gushing out at a considerable opening in the small intestine; the bowel was accordingly tied on either side of the rent, to prevent further extravasation. The intestines were extensively adherent to the abdominal walls through the medium of a thick, soft layer of lymph, and also to each other. Pockets, more or less considerable, were also formed by these adhesions among the folds of the bowels, containing puriform matter, with shreds of lymph. A large quantity of this was found in the iliac fossæ, especially the right. Both the parietal and visceral layer of the peritoneum was intensely injected, especially on the right side. The stomach, small and large intestines were carefully removed for examination. The stomach was perfectly healthy, as was the large intestine, except its peritoneal coat, which was moderately inflamed.

The *appendix vermiformis*, to the extent of about three-quarters of an inch nearest the *cæcum*, was perfectly healthy in all its coats, and contracted; the free portion extensively diseased, and partially disorganized, its extremity having been destroyed, and a large ragged opening in its walls; the lining membrane dark, thickened, and coated with exudation of lymph. The *cæcum*, and the *ilium* to the extent of about six inches from it, were healthy, with the exception of moderate injection of their peritoneal coat. From this point, throughout several feet of its course, the small intestine was the seat of the most intense inflammation as to all its layers. About a foot from the *caput coli* there existed a patch of gray slough about an inch and a half in length by an inch in breadth, with irregular but well-defined edges. The slough extended through all the coats, but had considerable tenacity. About twelve inches from this point another similar patch was found, and a few inches higher another, this being the seat of the perforation previously alluded to as having been tied off to prevent extravasation. At other points in the neighbourhood of these spots there were patches, which, at first sight, appeared similar; but, upon examination, proved to be only tough lymph, which could be separated with some difficulty from the peritoneum by scraping with the scalpel.

Remarks.—I have searched all the great authorities in vain for a case similar to the above. Neither Rokitansky, Cruveilhier, Carswell, nor Lebert, in his extensive work, mentions such a pathological condition. Rokitansky says gangrene "may occur in large patches in consequence of mechanical hyperæmia brought on by incarceration, or of passive congestion induced by paralysis." The only medical histories that bear any close resemblance to this are to be found in the *Pathological and Practical Researches on the Diseases of the Stomach and other Viscera of the Abdomen*, by Dr. Abercrombie, published in Edinburgh in 1828. But, in these cases, there was excessive distension of the intestine, which, itself, or in connection with other causes, might give rise to gangrene; in which case the slough would be somewhat extensive, as was the fact in Dr. Abercrombie's cases.

This case was presented to the Pathological Society of New York with the dried specimen, and a very accurately coloured drawing, very kindly made for me by Professor Weir, of West Point, from the specimen in a recent state. Considerable discussion was elicited, but none of the members

had met with a parallel case, nor could any one explain the ultimate cause of the gangrene. It was suggested by one that it might have been due to *emboli*.

Cold Spring, May 7, 1861.

Case of Gunshot Wound, in which a Leaden Bullet remained twenty years in the Walls of the Heart. By Galusha B. Balch, M. D., of North Lawrence, N. Y.—In the year 1840, a boy about fourteen years of age, by the name of John Kelly, was accidentally shot at Chatham Four Corners, Columbia Co., N. Y. He was a labourer on the Western R. R. The bullet entered his right shoulder through the upper border of the trapezius muscle about two inches from the acromion process. Three physicians were called in attendance who probed the wound, and said the ball lay about four or five inches from where it entered, in a direction toward the cavity of the chest near the sternal end of the clavicle.

There was but little hemorrhage and no great local disturbance at the time. But for reasons unknown to me, they did not think it advisable to remove the bullet. In about six weeks the boy was able to resume his work in part. He gradually gained his health, and became to all appearances a well man. He afterwards removed to Clinton Co. In 1845 he was attacked with pneumonia of the upper part of the right lung. Dr. Orvill Terry, of Redford, Clinton Co., attended him during this illness, and subsequently to the time of his death. From him I received the account of the case from 1845 to the 14th day of June, 1860, the day of Kelly's death.

The patient's illness at that time was very severe. His recovery was not expected. Then, and for the first time, was noticed a very tumultuous action of the heart, which remained after his recovery from the pneumonia, and continued to increase. At times the beating of his heart could be seen and heard at the distance of ten or twelve feet. Valvular disease was diagnosticated a few years before death.

His last illness was the result of taking cold. Pneumonia again set in on the first of June, 1860, and the heart's action increased rapidly; dispnœa great. His right arm and hand became purple and cold two days before his death.

The *post-mortem* examination was commenced with the view of finding the bullet and of examining the diseased condition of the heart and lungs, for we believed that the predisposing cause of the disease was the bullet which he had received twenty years before.

I dissected the shoulder and part of the neck; found the right internal jugular enlarged: the right external jugular entirely closed about one-fourth of an inch from where it entered the internal jugular. In the right subclavian artery, at the thyroid axis, was a large ossific deposit. It did not appear to be an ossification of the artery, but a deposit in the artery; the largest deposit was basin shaped; it was five lines across the top and three in depth; I found no ossific deposits elsewhere. I then opened the thorax, removed the right lung, found the upper portion in the first or congestive stage of pneumonia; the left lung healthy, no tubercles in either lung.

Before removing the heart it was noticed to be very soft and flabby; a hard lump could be felt in the lower part of it. The heart was two or three times its natural size; it was not weighed.

The pericardium was very adherent, especially on the right side of the heart, which appeared to be much more diseased than the left; as yet the